Amendments to the Specification:

Paragraph beginning on page 2, line 3

A diagram illustrating the internal architecture of a general purpose processing device is shown in Figure 1. The device, generally referenced 10, comprises program memory, data memory, a processing core and other peripherals such as communication ports. Often, the processing device is optimized for certain applications or tasks. For example, the device may be optimized for signal processing tasks. In this case, the device 10 comprises program read only memory (ROM) 20, patch random access memory (RAM) 22, data ROM 12, data RAM 14 and a processing core 16 optimized to perform digital signal processing (DSP) operations. The device also comprises one or more interfaces including communication ports 19 and a host interface 18.

Paragraph beginning on page 2, line 12

The host device 24 communicates with the DSP device via host interface 18. The host may comprise a personal computer (PC), microprocessor, microcomputer or any other computing platform that functions as a host to the DSP device 10. Typically, the host 24 comprises program memory, data memory and some form of nonvolatile memory 26 such as EEROM, EEPROM, Flash, etc.

Paragraph beginning on page 3, line 12

A problem arises, however, when the program code needs to be updated and is stored in nonvolatile memory and incorporated in products that are in consumer's hands dispersed over a large geographic area. In this case, remote downloading is logistically difficult and by nature insecure. Many consumer products are generally packaged in a 'closed' manner without any easy access to ~~the various~~ any data ~~port~~ ports. Once a device or product is in the field in consumer's hands, it is difficult to perform program updates. In such cases, users must return products to a central facility to perform the update. Imposing this requirement on consumers is very burdensome and is likely to be met with resistance and reluctance in the marketplace, and in addition is most likely to be very costly to the manufacturer [[or]] and/or distributor.

Paragraph beginning on page 3, line 21

One solution to this problem is to distribute the patch program over a network that is accessible to consumers and the product, such as the Internet. ~~Other solutions include distributing~~ Another solution is to distribute the patch over a wireless network if the product comprises some

form of wireless communications such as a radio. In this case, messages containing patch programs can be distributed periodically to each device over the wireless channel, e.g., cellular, satellite, etc.

Paragraph beginning on page 6, line 4

The invention thus provides a secure method of downloading and storing/installing the patch from an external source over a channel potentially exposed to hackers. The ~~method~~ present invention also provides a method of securely storing and installing the patch on the device.

Paragraph beginning on page 9, line 12

For illustration purposes, the invention is described in the context of a digital signal processing (DSP) device that is adapted to receive a program patch from an external source. Note, however, that it is not intended that the invention be limited to the example presented herein. It is appreciated that one skilled in the art ~~would be able to~~ can apply the principles of the invention to numerous other types of processing devices as well.

Paragraph beginning on page 11, line 30

The encrypted patch program is then transmitted to all devices intended to receive the updated patch (step 91). In the case of multiple groups of devices, a separate encrypted patch is transmitted for each group. Each device receives the transmission via receiving means coupled to the device (step 92). The encrypted patch received is stored in data RAM 66 within the device. Note [[the]] that alternatively, the encrypted patch program may also be stored in host memory 82.

Paragraph beginning on page 12, line 9

If the patch fails the integrity check (step 98), i.e. it is determined the patch is either not from the intended source or errors were detected, the patch is deleted from memory (step 104) and the processor is reset (step 106).

Paragraph beginning on page 12, line 12

If the integrity check on the patch passes (step 98), the clear text patch program is re-encrypted using the unique key known only to the processor (step 100). The key is a unique key that is not known to any other processing ~~devices~~ device, thus this step must be performed by the processor. The resultant encrypted patch program is then stored in memory (step 102). Preferably, the encrypted patch program is transferred to the host 80 and stored in nonvolatile memory 78. Alternatively, the patch is stored in nonvolatile memory but may be stored in volatile memory as well. The device may comprise internal nonvolatile memory for storing the patch.

Paragraph beginning on page 13, line 1

The clear text patch program is then loaded into patch RAM 74 (step 118). The processing device then begins operation using the installed patch program (step 120). As described previously, the processor initializes the program counter and begins executing instructions from the program ROM. When an address is reached that matches [[that]] an address stored in the patch RAM, a software trap is generated and the program continues executing code stored in the patch RAM.

Paragraph beginning on page 13, line 23

An example application of the invention will now be presented. The example comprises a digital radio broadcast system whereby data is broadcast to a plurality of fixed or mobile platforms. A block diagram illustrating an example application of the present invention whereby a computing platform is adapted to securely download and install [[a]] patch data transmitted by satellite is shown in Figure 5. The system, generally referenced 30, comprises means for broadcasting data to [[the]] a plurality of fixed or mobile platforms 40 including a satellite data center 34, an uplink facility 32 and satellite 36. The satellite transmission is augmented by a network of terrestrial repeater stations 38 with attached transmitter antennas 54.

Paragraph beginning on page 14, line 4

The data processor 48 (i.e. the DSP device) is constructed in accordance with the present invention and is located in a mobile platform which may comprise a digital radio. The radio is adapted to receive broadcasts from wireless sources such as [[a]] satellite, cellular network, terrestrial wireless network, etc. Note that it is not intended that the invention be limited to the example application presented herein. It is appreciated that one skilled in the art can apply the principles of the present invention to numerous other communication systems and types of platforms as well.